



Subject card

Subject name and code	Road and Motorway Construction II, PG_00049207						
Field of study	Civil Engineering						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2025/2026		
Education level	second-cycle studies		Subject group		Obligatory subject group in the field of study Subject group related to scientific research in the field of study		
Mode of study	Part-time studies		Mode of delivery		at the university		
Year of study	1		Language of instruction		Polish		
Semester of study	2		ECTS credits		3.0		
Learning profile	general academic profile		Assessment form		exam		
Conducting unit	Department Of Transportation Engineering -> Faculty Of Civil And Environmental Engineering -> Wydział Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Marcin Stienss				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	10.0	0.0	0.0	0.0	25
	E-learning hours included: 0.0						
	Adresy na platformie eNauczanie:						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	25		5.0		45.0	75
Subject objectives	Specify and expand knowledge of geometric road design and pavement design.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_W07] has expanded knowledge of theory of road and airport pavements, pavement maintenance, advanced methods of material testing and contruction technologies		has extended knowledge of the theory of road and airport pavement construction, pavement maintenance, advanced materials testing methods and special works technologies		[SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge		
	[K7_W06] has expanded knowledge about traffic theory, planing of road networks and junctions design, regarding economy, safety and environmental aspects		has extended knowledge of motion theory road network planning and design of road junctions from considering aspects of economics, safety and environmental protection		[SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation		
	[K7_U07] is able to design elements of road network, to apply the rules of traffic organisation and control, taking into account economy, safety and environmental factors,		is able to design elements of the road network, apply the principles of designing organization and traffic control systems, taking into account economic, safety and environmental protection aspects		[SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools [SU2] Assessment of ability to analyse information		
	[K7_U08] Is able to evaluate technical conditio of a road, to design its pavement and choose proper construction technology using mechanistic methods and material investigations		It is possible to assess the technical condition of roads, design the pavement structure and select the appropriate construction technologies using mechanistic methods and materials testing		[SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information		

Subject contents	1. News on road, interchange and intersection design. 2. Knowledge about design with particular emphasis on safety. 3. Knowledge about surface design by mechanistic methods.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Exercises performed	70.0%	80.0%
	Attendance	50.0%	20.0%
Recommended reading	Basic literature	Regulation of the Minister of Transport and Maritime Economy of March 2, 1999 on the technical conditions to be met by public roads and their location (Journal of Laws of 2016, item 124, i.e.	
	Supplementary literature	Ochrona Piesznych podręcznik dla organizatorów ruchu pieszego. KRBRD 2014	
	eResources addresses		
Example issues/ example questions/ tasks being completed	1. Calculate the parameters of vertical arches. 2. Design the surface for the road with given parameters.		
Work placement	Not applicable		

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